

VOLUME 27, NO. 2 Summer 2009

Building a Future for Borneo's Bats
Training and accessible resources prepare local researchers
Matthew Struebig

Indonesia is home to one of the most diverse collections of bats in the world, with approximately 175 species. Yet this phenomenal resource has been scarcely studied, and little is known about the conservation status of most species. This is especially true of Kalimantan, a region that sprawls across two-thirds of Borneo. A core problem for bat conservation here is that recruiting and training bat workers is especially tough when few resources are available in the native language.

Bats suffer from unsavory public perceptions throughout Indonesian society, making them unpopular subjects for study. Among many non-Muslims, the only value of bats is as meat or medicine (for asthma), and unregulated hunting of flying foxes is common. Smaller bats are disdained as vermin, sometimes erroneously referred to as tikus terbang (flying rats) or Pontianak (vampires). But the biggest barrier to bat conservation in Indonesia is that research institutions mostly lack the skills, funds or equipment to conduct even the most basic bat research.

To help meet these challenges and establish long-term bat conservation in the region, Angela Benton-Browne of the Orangutan Tropical Peatland Project in Indonesia and I helped found the Kalimantan Bat Conservation Project to combine surveys of the region's bat populations with training for local biologists and students. BCI's Global Grassroots Conservation Fund supported our "capacity building" efforts, which have had a lasting legacy in Borneo.

The project started as a collaboration between the University of Palangka Raya in Central Kalimantan and the Orangutan Foundation, a nongovernment organization focused on our first research site in Tanjung Puting National Park. Since then, BCI's support allowed me to expand bat-survey training to Mulawarman University and The Nature Conservancy in East Kalimantan, Fauna Flora International in West Kalimantan, and the Indonesian Institute of Sciences. Along the way, we have seen support from other bat researchers in Indonesia: Dorothea Pio, Ibnu Maryanto and Agustinus Suyanto.

The Kalimantan Project has now conducted bat surveys at 10 sites. Hands-on training of Indonesian undergraduates was an integral part of each survey, and six university students have based their biology theses on the research. We have expanded the known ranges of many of Borneo's bats and updated the island's bat list to 97 species. These include the first record of the Krau woolly bat (*Kerivoula krauensis*) outside of peninsular Malaysia.

The team conducted three training sessions to teach researchers and students about bats and how to study them. Workshop participants "researchers, teachers, students and nature club members" learned about the ecological and economic importance of bats and the threats they face; the basics of humanely handling bats and collecting scientific data; and how to set and use harp traps in forest and cave settings.



 [View PDF version](#)
[1.36 MB]

Our experience with the workshops showed that sustainable bat conservation in Indonesia is unlikely without a basic knowledge of what species are present and the threats they face. Few scientific publications or teaching resources have been written or translated into the national language, so information on wildlife is often inaccessible to many Indonesian researchers and students, who may avoid research or conservation careers as a result. To this end, our bat field manual, written in the national language, provides an important foundation for Indonesian bat conservation.

The training manual (or buku panduan), has been written in both English and Indonesian with help from Rakhmad Sujarno. The identification keys draw heavily from information in Payne & Francis's™ *The Mammals of Borneo*, but with important updates from our surveys in Kalimantan. It has been freely distributed to workshop participants, universities, conservation groups and others throughout the region and is now used in field studies in Java, Sumatra and Brunei Darussalam, as well as Kalimantan.

One of the most important findings of the research in Kalimantan is that harp traps are required to accurately describe forest bat diversity. Our surveys were the first to use harp traps in Indonesian Borneo, and those traps, left with several local institutions, continue to be used in bat surveys today.

The Kalimantan Bat Conservation Project was a vital step in developing a sustainable bat-research and -conservation effort in Indonesia and has now expanded to a Borneo-wide venture. The team especially hopes its field manual will encourage others to continue to work in this remarkably diverse region and is particularly keen to hear from anyone interested in Borneo's™ bats.

Matthew Struebig is a postdoctoral conservation researcher currently based at Queen Mary University of London and the University of Brunei Darussalam.

BCI's™ Global Grassroots Conservation Fund plants and nurtures the seeds of bat conservation around the world. Your support can make a real difference. Support Global Grassroots at www.batcon.org/grassroots.

All articles in this issue:

- ▶ [Building a Future for Borneo's™ Bats](#)
- ▶ [Colombia's™ first bat conference](#)
- ▶ [The Founder Passes the Baton](#)